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EXAMINER	
BORLINGHAUS, JASON M	
ART UNIT	PAPER NUMBER
3693	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No.	Applicant(s)	
	09/699,503	CUSHING ET AL.	
	Examiner	Art Unit	
	JASON M. BORLINGHAUS	3693	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Transitional After Final Practice

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. Examiner apologizes for the erroneous Final Rejection mailed 4/25/08 and the statements contained therein that certain claims were allowable. This Non-Final Rejection supersedes and replaces the Final Rejection mailed 4/25/08.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 27 - 44 are rejected under 35 U.S.C. 101 because, in order to comply with §101 a process must (1) be tied to another statutory class of invention (such as a particular apparatus or system for performance of the claimed process) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing.

The method, recited in **Claims 27 - 44**, fail to (1) be tied to another statutory class of invention or (2) transform underlying subject matter to a different state or thing. Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972).

There is no recitation within the claims to indicate that the steps that comprise the method are nothing but mental steps performed within the mind of a person, although the preamble indicates at least one step of the method is implemented on a computer.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 28 – 33, 36 and 39 – 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 28 – 33, 36 and 39 – 40 are replete with structural problems.

Claim 28 claims a strategy consisting of "dividing a trading day into a plurality of time bins…computing average share volume for each time bin over a predetermined period of time and determining share volume percentages for each time bin."

How are the share volume percentages being determined? What is the numerator and what is the denominator? Examiner assumes that the Applicant intends that an entire day is being divided into a plurality of time bins and the percentage is the trading volume of that particular time bin as a portion of the trading volume of all the time bins collectively (e.g. entire trading day).

Applicant utilizes the terminology “traded over a portion of a market day”, “a trading day” and "a predetermined time”. Examiner is uncertain whether all terms are referring to the same time period, or separate and distinct time periods.

Claim 28 then executes the trade orders, allocating the shares contained within the trade order on the basis of the percentages calculated for each time bin.

This creates a logic problem. The only way that the percentage of trading volume for each time bin can be calculated is after the total trading volume of all the time bins have been calculated. By then it is too late to execute an order in an earlier time bin as the time bin is in the past.

For example, you would only realize at the end of a trading day (4:30pm) that the time bin of 10:00 am to 11:00 am represented 15% of the trading day. However, while you may have this calculation at the end of the trading day (4:30pm) it would be too late to execute the order between 10:00 am to 11:00 am.

An alternative interpretation is that the system is pulling historical data and is assuming that every time bin, regardless of the date, always has the same trading volume. For example, the time bin of 3:00 pm to 4:00 p.m. always has an average trading volume of 4,000 shares every day of the year. However, the claims do not recite historical or past data, and is written to indicate that trading volume is being calculated based upon real-time data.

Claim 29 claims that “a price and time for each limit” is determined "as a function of the amount remaining in said given time bin" and "a function of real-

time assessment of current market conditions." Is the price and time determined by one or both of these functions? How is price a function of time? For example, should we assume that as the time approaches expiration that the trader would just settle for any price in order to complete the order before time expiration?

Claim 30 suffers from similar problems as Claim 29.

Claim 31 claims "said server", although this is the first mention of a server. Claim 40 suffers from similar problems.

Additionally, Claim 31 claims "a price [is] determined according to conditions specified in said request." However, earlier claims stated that price was determined based upon a function of time and/or a function of market conditions. Now the claims state that the price is dictated by the conditions in the request. Which is it?

Claims 32 - 33 claim "***adverse*** market conditions" and "***more aggressive*** limit orders". (emphasis added). The cited claim limitations, as written, contain terms that are subjective or determinations of whether the claim limitations are satisfied are subjective. Recent court decisions issued by the Court of Appeals for the Federal Circuit (CAFC) noted that claims are indefinite in circumstances where a claim contains a term that is completely dependent on a person's subjective opinion. *see Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1350 (Fed. Cir. 2005).*

Claim 36 suffers from similar problems as Claims 32 – 33.

Other dependent claims are rejected based upon their dependency to the prior rejected claims.

Examiner will attempt to examine Claims as they can best be interpreted in light of the specification.

Please review all pending Claims and make corrections where necessary.

Claim Objections

Claims 31, 37 – 38 and 40 are objected to due to lack of antecedent basis.

Claim 37 claims "The method of claim 34, wherein said monitoring of said indicators is performed automatically by ***said*** server using information provided by an electronic real-time information provider." (emphasis added)

Claim 38 claims "The method of claim 27, further comprising the step of providing a plurality of servers connected to ***said*** communication network and to each other over said network, said servers being configured to compare received block trade requests with orders received by other servers of said plurality of servers, and to carry out trades with said other servers in accordance with the order information entered into each server." (emphasis added).

Examiner believes the above recited claim limitations with emphasized terms are the first recitation of such claim limitations and, therefore, the article ***said*** is inappropriate.

Claims 31 and 40 suffer from similar objections.

Please check all additional claims to ensure that proper antecedent basis has been maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 27 - 38 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeny (US Patent 6,594,643) in view of Business Lawyer (*Large Order Execution in the Futures Market. The Business Lawyer.* 44 Bus. Law. 1335. August 1989. pp. 1 – 21) and Clemons (Clemons, Eric K; Weber, Bruce W. *Restructuring Institutional Block Trading: An Overview of the Optimark System*. Journal of Management Information Systems. vol. 15, no. 2. pp. 1 - 16).

Regarding Claim 28, Freeny discloses a computer implemented method for executing trades for a security (abstract) comprising:

- receiving a trade request (trade request), said request including a quantity of shares (product quantity) to be traded over a portion of a

market day for a trade forum (exchange). (see col. 3, line 50 – col.. 4, line 11);

- generating an executable trade order to implement said trade request according to a trading strategy (predetermined parameters or conditions necessary to authorize trade) selected from a plurality of trading strategies (predetermined criteria/algorithms). (see col. 3, line 15 – col. 4, line 11); and
- executing said executable trade orders in a trade forum (trade exchange) determined by said selected trading strategy algorithm(see col. 3, line 50 – col. 4, line 28).

Freeny does not explicitly disclose a method comprising the receipt nor processing of ***block*** trade requests, although Freeny does allow trade requests with user-defined product quantities. Block trade requests are just trade requests pertaining to a particularly large product quantity and it has been held that changing size without producing any new and unexpected result involves only routine skill in the art. *In re Rose, 200 F.2d 459, 463, 105 USPQ 237, 240 (CCPA 1955).*

Freeny does not teach a method comprising dividing a trading day into a plurality of time bins; for a received trade request, computing share volume for each time bin and determining share volume percentages for each time bin; multiplying the number of shares requested by the percentages for each time bin to determine the number of shares to be allocated within each time bin; and generating executable trade orders for said allocated numbers of shares within

each time bin in accordance with said selected trading strategy algorithm; nor executing said executable trade orders at different times determined by said selected trading strategy algorithm.

Business Lawyer discloses a method comprising:

- dividing a trading day (some period of time) into a plurality of time bins (series of bids and offers) for a received trade request. (see pp. 1 - 2);
- computing share volume for each time bin (whether market can absorb order without significant impact on price). (see pp. 1 – 2); and
- generating executable trade orders for said allocated numbers of shares (piecemeal order) within each time bin with said selected trading strategy algorithm. (see pp. 1 – 2 and 9); and
- executing said executable trade orders at different times (piecemeal) determined by said selected trading strategy algorithm. (see pp. 1 – 2 and 9).

Clemons discloses that the metric of average trading volume is utilized to determine whether the market can properly absorb a block trade without an adverse effect. (see p. 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Freeny to incorporate the techniques and methodologies for handling block trade requests, as disclosed by Business

Lawyer, allowing for the execution of block trade requests without the adverse impact upon the marketplace.

Business Lawyer does not explicitly teach a method wherein the orders are executed based upon the percentage of trading volume in each time bin, although Business Lawyer does disclose that orders are executed piecemeal over time (each time period of order execution being analogous to a time bin) in a fashion as to allow the market to absorb the order. As the market's ability to absorb said order is dependent upon trading volume, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Freeny and Business Lawyer by incorporating a trading volume metric, as disclosed by Clemons, for order execution.

Regarding Claim 29, Freeny does not teach a method wherein executable trade orders of an allocated number of shares within a given time bin includes at least one limit order during said given time bin, with a price and time for each limit order being determined as a function of an amount of time remaining in said given time bin, and as a function of real-time assessment of current market conditions based on real-time market data.

Business Lawyer discloses a method wherein executable trade orders of an allocated number of shares within a given time bin includes at least one limit order (daily limit instructions) during said given time bin (two-day period), with a price and time for each limit order being determined as a function of an amount of time remaining in said given time bin (two-day period), and as a function of

real-time assessment of current market conditions based on real-time market data (probing of market). (see p. 1 - 2; p. 9).

It would have been obvious to one of ordinary skill at the time the invention was made to have modified Freeny, Business Lawyer and Clemons by incorporating a limit order, as disclosed by Business Lawyer, allowing the client to maintain some control on the execution of his trade order.

Regarding Claim 30, Freeny does not teach a method further comprising the steps of periodically checking the status of outstanding executable trade orders; and changing at least one of the pricing and the number of shares of an outstanding executable trade order as a function of an amount of time remaining in said given time bin, and as a function of real-time assessment of current market conditions based on real-time market data.

Business Lawyer discloses a method further comprising the steps of periodically checking the status of outstanding executable trade orders; and changing at least one of the pricing and the number of shares (time, price and size discretion) of an outstanding executable trade order as a function of an amount of time remaining in said given time bin (two-day period), and as a function of real-time assessment of current market conditions based on real-time market data. (probing of market). (see p. 1 - 2; p. 9).

It would have been obvious to one of ordinary skill at the time the invention was made to have modified Freeny, Business Lawyer and Clemons by

incorporating price and size changes, as disclosed by Business Lawyer, allowing the trader to adapt to current market conditions.

Regarding Claim 31, Freeny does not teach a method further comprising the steps of identifying securities for which said server has received a block trade request on both a buy side and a sell side; and internally transferring shares of such identified securities from a seller to a buyer at a price determined according to the conditions specified in said request for said identified securities.

Business Lawyer discloses a method further comprising the steps of identifying securities for which said server has received a block trade request on both a buy side and a sell side (cross the block). (see p. 2); and internally transferring shares of such identified securities from a seller to a buyer at a price determined according to the conditions specified in said request for said identified securities. (see p. 2).

It would have been obvious to one of ordinary skill at the time the invention was made to have modified Freeny, Business Lawyer and Clemons by incorporating the ability to internally transfer securities, as disclosed by Business Lawyer, thereby minimizing impact on the market.

Regarding Claim 32, Freeny does teach a method wherein said executable trade orders comprise limit orders for at least partial amounts of said allocated numbers of shares within each bin, the method further comprising the steps of determining after a predetermined period of time whether said limit orders have been at least partially filled; if said limit orders have been at least

partially filled, determining whether adverse market conditions exist, and changing the remaining share orders to more aggressive limit orders or market orders for immediate execution if adverse conditions exist; otherwise, entering additional limit orders for partial amounts of said allocated numbers of shares within said time bins.

Business Lawyer discloses a method wherein said executable trade orders comprise limit orders (limit instructions) for at least partial amounts of said allocated numbers of shares within each bin, the method further comprising the steps of determining after a predetermined period of time whether said limit orders have been at least partially filled (500 contracts remained to be sold); if said limit orders have been at least partially filled (500 contracts remained to be sold), determining whether adverse market conditions exist (approaching end of time period), and changing the remaining share orders to more aggressive limit orders or market orders for immediate execution if adverse conditions exist. (see p. 9).

It would have been obvious to one of ordinary skill at the time the invention was made to have modified Freeny, Business Lawyer and Clemons by incorporating the ability to complete order placement, as disclosed by Business Lawyer, thereby satisfying the client's order.

Regarding Claims 27 and 33, such claims recite substantially similar limitations as claimed in previously rejected claims. Such claim limitations are therefore rejected using the same art and rationale as previously utilized.

Regarding Claim 34, Freeny discloses a method further comprising the steps of:

- wherein said trade request includes a quantity of shares of the security within a time period. (see col. 3, lines 22 – 44);
- wherein said generating step includes the step of:
- continuously monitoring during said time period a plurality of market indicators (predetermined trading criterion, such as price) related to said security. (see col. 2, line 60 – col. 3, line 15; col. 4, lines 48 – 67);
- generating during said time period one or more executable trade orders selected from the group consisting of a market order. (see col. 3, line 50 – col. 4, line 2); and
- wherein said orders are sent until an order is executed by said trade forum. (see col. 3, line 50 – col. 4, line 2).

Freeny does not teach a method ***repeatedly*** generating during said time period one or more executable trade orders. (emphasis added).

However, repeatedly generating orders and executing a plurality of trade orders could be construed as mere repetition or duplication of the steps disclosed by Freeny and, generally, duplication of essential working parts without more is generally not deemed patentable. *St. Regis Paper Co. v. Bemis Co, 193 USPQ 8 (CA 7); In re Harza, 124 USPQ 378 (CCPA 1960).*

Regarding Claims 35 – 36, such claims attempt to further narrow and/or define claim limitations that, as written, were claimed as being alternative limitations. The courts have held that when multiple claim limitations are cited as alternative limitations, the prior art need only disclose one of the alternatives to anticipate. *Brown v. 3M, 265 F.3d at 1353, 60 USPQ2d at 1377-78.* As these instant claims depend upon alternative limitations that were not addressed, due to their alternative nature, such claims in essence "drop-out" due to lack of proper dependency.

Regarding Claims 37 - 38, Freeny discloses a method wherein:

- wherein said monitoring of said indicators (investment data) is performed automatically by said server (individual trading computer) using information provided by an electronic real-time information provider (data sources). (see col. 2, line 60 – col. 3, line 15);
- providing a plurality of servers (data sources) connected to said communication network (communication link) and to each other over said network (communication link). (see col. 2, line 60 – col. 3, line 15); and
- to carry out trades with said other servers in accordance with the order information (predetermined trading criteria) entered into each server (individual trading computers). (see col. 2, line 60 – col. 4, line 28).

Freeny does not teach a method wherein servers being configured to compare received block trade requests with orders received by other servers of said plurality of servers.

Business Lawyer discloses a method wherein firms being configured to compare block trade requests with orders received from other firms in order to carry out trades with said other firms in accordance with trade information, such as locating interest to take the other side of the order. (see p. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Freeny to incorporate the techniques and methodologies for handling block trade requests, such as matching orders before they are executed within the marketplace, as disclosed by Business Lawyer, allowing for the execution of block trade requests without the adverse impact upon the marketplace.

Regarding Claim 40, such claim recites substantially similar limitations as claimed in previously rejected claims. Such claim limitations are therefore rejected using the same art and rationale as previously utilized.

Regarding Claim 41, Freeny discloses a method wherein said trade request includes a trade side (buy/sell), a security identifier (identifier for at least one investment item), a number of shares (product quantity), wherein said trade side is either a buy side or a sell side. (see col. 3, line 50 – col. 4, line 2).

Freeny does not explicitly disclose that a trade request includes a time period, although Freeny does disclose submission of a market order “conditioned

to specifically identify all predetermined parameters or conditions necessary (such as long or short positions) to authorize the individual selected market trader to make the trade identified in the trade request signal." (see col. 3, line 62 – col. 4, line 2). Such disclosure indicates that the trade request parameters specifically disclosed by Freeny are intended to be less than exhaustive and that additional parameters or conditions may apply.

Business Lawyer discloses a method wherein said block trade request includes a time period (two-day period). (see p. 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Freeny to incorporate a time-based parameter on the trade request, as disclosed by Business Lawyer, thereby allowing a user to specify an expiration time for execution of the submitted trade request.

Claims 39 and 42 – 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeny, Business Lawyer and Clemons, as applied in Claims 27 and 29 above, and in further view of ***Official Notice.***

Regarding Claim 39, Freeny does not teach a method further comprising the step of smoothing said determined share volume percentages according to a predetermined algorithm.

Examiner takes ***Official Notice*** that smoothing a percentage, such as limiting the percentage to a particular number of significant digits, is old and well known in the art of mathematics.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Freeny, Business Lawyer and Clemons by smoothing the percentage, as is old and well known in the art, thereby reducing the percentage to its most significant components.

Regarding Claims 42 – 44, Freeny discloses a method wherein:

- said method possesses a plurality of trading strategies (algorithms). (see col. 3, line 15 - col. 4, line 11); and
- said executable trade orders are generated based upon said trade request at prices (predetermined trade price) based on at least one predetermined market indicator (investment data). (see col. 3, line 50 – col. 4, line 2).

Freeny does not teach a method wherein wherein said plurality of trading strategies include a ***Short-term Price Improvement (SPI)*** trading strategy and a ***Volume Weighted Adjusted Price (VWAP)***; nor when said executable trade orders are generated based upon said block trade request ***within a specified time period*** at prices based on at least one predetermined market indicator. (emphasis added).

Business Lawyer discloses a method wherein said executable trade orders are generated based upon said block trade request within a specified time period. (two-day period). (see p. 9).

Examiner takes ***Official Notice*** that trading strategies based upon securities' anticipated price improvement, either over the short-term or long-term, and volume weighted adjusted price are old and well known trading strategies or trading benchmarks in the art of investing and financial management.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Freeny, Business Lawyer and Clemons by incorporating a specified time period, as disclosed by Business Lawyer, and to utilize trading strategies, such as SPI and VWAP, as are old and well known in the art, as such trade qualifiers and strategies are standard and conventional components and considerations employed in executing trade requests.

Response to Arguments

Applicant's arguments filed 12/26/07 have been fully considered but they are not persuasive.

Failure to Disclose All Claimed Features - Claim 27

Applicant argues that Freeny, the primary prior art reference, fails to explicitly disclose "a block trade request". Examiner agrees.

Examiner asserts that Freeny discloses a method for executing trades for a security comprising the step of receiving trade requests. (see col. 3, line 50 – col. 4, line 11). Freeny does not disclose anything concerning the size of the trade request submitted, neither whether the trade request is a small or large (i.e. block) trade request.

However, as asserted by the Examiner in the previous office action mailed on 9/24/2007, the only difference between a block trade request and a generic trade request is that a block trade request is a large trade request. Examiner asserts that merely making the trade request very large (or very small) does not distinguish the claimed invention from the cited prior art, especially as Freeny allows the user to set the trade request to any quantity desired. (see col. 3, lines 22 – 44). The courts have stated changing size, such as changing the size of the trade request, without producing any new and unexpected result involves only routine skill in the art. *In re Rose, 200 F.2d 459, 463, 105 USPQ 237, 240 (CCPA 1955).*

Regardless, Business Lawyer, the secondary prior art reference, does disclose that, at times, a trade request may be for a block trade. (see p. 2). “In the securities market, a “block” is generally considered to consist of 10,000 shares or more.” (see p. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Freeny to incorporate the ability to submit large (i.e. block) trade requests to the system, as disclosed by

Business Lawyer, because one type of trade request that is commonly dealt with in the securities market are block trades.

Applicant argues that prior art teaches away from merely submitting large trade requests due to the adverse effect on price that would ensue. Examiner does not totally agree with Applicant's assertion.

Business Lawyer discloses that a block trade ***may*** disrupt the market. (see p. 1). Therefore, a "firm "probes" the market to determine whether it can absorb the order without a significant impact on the price." (see p. 2). A block trade may not necessarily be disruptive on the marketplace, depending upon the nature of the stock being traded. For example, the marketplace of a particular stock that is thinly traded (i.e. traded in low volume) would be disrupted by a block trade, while a stock with a deep market (i.e. traded in high volume) would not as the marketplace might be able to absorb the trade.

Business Lawyer also discloses that should the block trade be deemed to be disruptive then the entire order is executed "as [a] series of bids and offers over some period of time", in hopes of not disrupting the marketplace (see p. 1). As such, when a block trade request is submitted to a broker or a firm, if it is deemed necessary by the broker or the firm, the block trade request is converted into a series of smaller trade requests, so as to minimize the impact upon the marketplace.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Freeny and Business Lawyer to incorporate the ability to submit block trade requests to a firm or broker, as

disclosed by Business Lawyer, allowing for their assessment of the potential disruptive effects of executing a block trade request as a single bid or order.

Applicant argues that the prior art references fail to disclose implementing the trade request according to a trading strategy selected from a plurality of trading strategies. Applicant's arguments appear to be based upon a specific interpretation concerning what is meant by "trading strategies" as Applicant recounts trading strategies (e.g. VWAP and SIP) contained within the specification but are not recited within Claim 27 itself.

Examiner refutes such an assertion as such definition of claim terminology was not articulated in the original specification nor utilized in the previously presented claim(s). As such, the broadest definition for the term was applied as to provide the "broadest reasonable interpretation consistent with the specification during the examination of a patent application since the applicant may then amend his claims." *See In re Prater and Wei, 162 USPQ 541, 550 (CCPA 1969).*

Freeny discloses executing trade orders according to a trading strategy (predetermined trading criteria/algorithms) selected from among trading strategies. (see col. 3, lines 23 – 44). "[A]lgorithms capable of being used to analyze investment data to generate a trade request to buy and/or sell one of multiples of an investment item or products" are trading strategies. (see col. 3, lines 23 - 44).

Business Lawyer discloses that account executives were "given instructions to sell as many XMI September futures contracts as he could over a

two-day period and was given time, price and size discretions, subject to the customer's daily limit instructions as to overall position size." (see p. 9). This is a trading strategy.

A trading strategy is just a course of action to achieve a particular goal. Any selection of parameters such as provision of daily limit instructions or consultation of a trading algorithm constitutes the selection of a trading strategy.

Applicant argues that Business Lawyer does not teach generating a plurality of executable trade orders to implement said block trade request according to the trading strategy.

Business Lawyer discloses "given instructions to sell as many XMI September futures contracts as he could over a two-day period and was given time, price and size discretions, subject to the customer's daily limit instructions as to overall position size Orders were fed into the market piecemeal until 500 contracts remained to be sold." (see p. 9).

Therefore, Business Lawyer discloses the generation of a plurality of executable trade orders, as orders were executed (i.e. fed into the market) piecemeal. The piecemeal orders were utilized to implement a block trade (e.g. an entire portfolio) according to the trading strategy (e.g. daily limit instructions).

One of Ordinary Skill Would Not Combine

Applicant argues that one of ordinary skill in the art would not have modified Freeny to incorporate the techniques and methodologies for handling block trade requests.

Applicant asserts that there is “simply no suggestion” to combine a manual execution process (Business Lawyer) with an automated process (Freeny). Examiner refutes such an assertion.

As to automating a known manual process, he Courts have stated that “if a new combination of old elements is to be patentable, the elements must cooperate in such manner as to produce a new, unobvious, and unexpected result. It must amount to an invention…In the absence of invention, utility and novelty are not sufficient to support the allowance of claims for a patent… Furthermore, it is well settled that it is not "invention" to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result.” *In re Venner and Bowser, 120 USPQ 192, 194 (CCPA 1958).*

Furthemore, the Courts have stated that "[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *KSR Int'l Co. v. Teleflex, Inc. 127 S. Ct. 1727, 1740, 92 USPQ2d 1385, 1396 (2007).*

In the instant case, the cited prior art references were available in the field at the time of the purported invention. The Applicant merely implemented a

variation of the existing elements present within the prior art in establishing his/her own invention, either through substitution and/or combination of such prior existing elements. Where, as here "[an application] claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result," *KSR, 127 S.Ct. at 1740, 82 USPQ2d at 1395* (citing *United States v. Adams, 383 U.S. 50-51, 148 USPQ 479, 483 (1966)).*

Furthermore, in the instant case, each incorporated element performs the same function and/or provides the same utility as intended in their original state, and therefore yields a predictable result.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON M. BORLINGHAUS whose telephone number is (571)272-6924. The examiner can normally be reached on Monday - Friday; 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James A. Kramer can be reached on (571)272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Jason M Borlinghaus/
Examiner, Art Unit 3693
November 30, 2008